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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,783

06/30/2003

Wade L. Hennessey

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07/17/2008

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EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT

PAPER NUMBER

2145

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/611,783	Applicant(s) HENNESSEY ET AL.	
	Examiner Jeffrey R. Swearingen	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080425</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/25/08 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auerbach (US 6,832,253) in view of Martija et al. (US 7,039,689).

5. In regard to claim 1, Auerbach disclosed a proximity-based content control method which "propagates" or positions content based upon the "proximity" between various nodes on a network. See Applicant's characterization of Auerbach, remarks, 4/25/08, page 8.

In regard to claims 1, 10, 19, Auerbach disclosed:

receiving a request for content from a client at a directory server; column 6, lines 42-43

determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network; column 6, lines 27-40. Determining whether a client is a member of an arena is done by proximity between the client and potential video servers. and

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if the client is a member of the arena, applying routing rules to the delivery of content to the client, including routing rules specific to the arena. Column 8, lines 56-67 define proximity as functioning along a specific network path.

Auerbach failed to disclose an arena defining a group of nodes wherein at least one arena has a plurality of nodes. However, Martija, in the analogous field of art of content distribution networks, disclosed a geographical system of treating multiple hosts in a network. Martija, column 3, lines 10-13. A database was used to record metrics about each geographical region of nodes. Martija, column 4, lines 1-4. This information is used to calculate hop and vector distances for routing purposes. Martija, column 2, lines 10-15, lines 24-31.

Auerbach disclosed it was well known in the art to transmit content to a point based upon the hop count of the distance. Auerbach, column 1, lines 35-54. Auerbach suggested that geographic location may be considered as a factor to identify the proximity of content in a network. Auerbach, column 1, lines 55-67. Martija was able to group sets of nodes and calculate the sets hop and distance vector metrics based upon geographic grouping of nodes. Martija, column 3, lines 10-13. It would have been obvious to one of ordinary skill in the art at the time of invention to expand the proximity location system of Auerbach with the geographical groupings of Martija in order to allow a system to work with small entities, local organizations, corporations, or ISPs instead of limiting the system to individual hosts. Martija, column 1, lines 48-54.

6. In regard to claims 2, 11, 20, Auerbach further disclosed:

defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena. The content control system receives or otherwise identifies the location of one or more clients requesting content. Column 7, line 21. When the user requests the content in column 6, this is the input. The input determines the proximity, which in turn specifies the edge routers surrounding nodes on the network that are members of the arena. Column 7, lines 18-67.

7. In regard to claims 3, 12, 22, Auerbach further disclosed:

after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved. Proximity is determined by ping, routing protocols, routing tables, and traceroute. See columns 9 and 10 for multiple ways to dynamically change the arenas as the node is moved based on the actual path calculations performed by these network management tools.

8. In regard to claims 4, 13, 23, Auerbach further disclosed:

defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena. See routing tables in column 10, lines 33-42.

9. In regard to claims 5, 14, 24, Auerbach further disclosed:

a routing rule can prohibit traffic across a specific network link. A bad proximity is attributed to a circuit in column 9, line 17.

10. In regard to claims 6, 15, 25, Auerbach further disclosed:

a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization. Quality of Service is used in determining proximity in column 9, lines 42-50. Network links are labeled based on bandwidth and average traffic in column 10, line 16.

11. In regard to claims 7, 16, 26, Auerbach further disclosed:

the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link. Quality of service in column 9, lines 42-50.

12. In regard to claims 8, 17, 27, Auerbach further disclosed:

applying routing rules to the delivery of content to the client involves

attempting to receive content at the client from nodes on a local subnet;

if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena;

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if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list;

if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and

if no nodes are available on the router graph, attempting to receive the content from an origin server.

This claim uses routing rules based on multiple proximities. Multiple proximities are taught in column 13, lines 31-39. The packets are transmitted based upon their "proximity" to the server and the client. A local subnet would be the nearest proximity. If the local subnet was not available, local nodes would be the next proximity. If the local arena nodes were not available, topologically close nodes would be a lower proximity, and the origin server would be the lowest proximity. See further column 9, lines 4-24.

13. In regard to claims 9, 18, 28, Auerbach further disclosed:

the fallback list for arenas specifies an ordering of arenas. Routing tables specify preferred outgoing lines in column 10, lines 33-42.

14. In regard to claim 21, Auerbach further disclosed:

the routing rules specific to the arena include one or more of: an order of precedence for fallback within match sets, an order of precedence for fallback between match sets, identification of sets to avoid, and rules for when to return to an origin server.

Column 8, lines 56-67 define proximity as functioning along a specific network path. This is an *order of precedence for fallback within match sets*.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Alkhatib et al. US 6,421,732

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Bae et al.

US 6,970,929

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
Primary Examiner
Art Unit 2145

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